IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1, 2, 37 and 54, add NEW claims 55 and 56, and CANCEL claims 3-6, 9, 11-12, 17, 19- 20, 22-36, 41-43, 48 and 50-52 without prejudice or disclaimer in accordance with the following:

1. (CURRENTLY AMENDED) An optical pickup for a recording medium, comprising:

a light source generating and emitting a light beam;

an objective lens focusing the light beam from the light source to form a light spot on the recording medium;

an optical path changer disposed on an optical path between the light source and the objective lens, altering a traveling path of the light beam incident on the recording medium;

a light beam division and detection unit dividing the incident light beam passed through the objective lens and the optical path changer after being reflected from the recording medium into a first light beam portion and a second light beam portion ~~around~~ encircling the first light beam portion, and detecting first and second detection signals from the first and second light beam portions; and

a thickness variation detection circuit detecting a variation in thickness of the recording medium by subtracting the second detection signal from the first detection signal and outputting a thickness variation signal indicative thereof.

2. (CURRENTLY AMENDED) The optical pickup as recited in claim 1, wherein the light beam division and detection unit comprises:

a photodetector comprising first and second light receiving portions dividing the incident light beam into the first light beam portion and the second light beam portion ~~around~~ encircling the first light beam portion and photoelectrically converting the first and second light beam portions into the first and second detection signals, respectively.

3-6 (CANCELLED)

7. (ORIGINAL) The optical pickup as recited in claim 1, wherein the light beam division and detection unit divides and detects the light beam as a circular or rectangular first light beam portion and as a circular or rectangular second light beam portion surrounding the first light beam portion.

8. (ORIGINAL) The optical pickup as recited in claim 7, wherein the first light beam portion corresponds to 10-90% of the incident light beam.

9. (CANCELLED)

10. (ORIGINAL) The optical pickup as recited in claim 1, further comprising:

a spherical aberration compensation element on the optical path between the optical path changer and the objective lens, driven according to the thickness variation signal from the thickness variation detection circuit to compensate for spherical aberration caused by the thickness variation of the recording medium.

11-12 (CANCELLED)

13. (ORIGINAL) The optical pickup as recited in claim 1, wherein the thickness of the recording medium is a distance between a light incident surface of the recording medium and an information recording surface of the recording medium.

14. (ORIGINAL) The optical pickup as recited in claim 2, wherein the optical path changer comprises:

a beam splitter transmitting the light beam from the light source to the recording medium through the objective lens and reflecting the incident light beam through the objective lens to the photodetector by a predetermined ratio.

15. (ORIGINAL) The optical pickup as recited in claim 1, further comprising:

a collimating lens on the optical path between the light source and the optical path changer collimating the light beam, which is diverging, from the light source; and

a sensing lens on the optical path between the optical path changer and the light beam

division and detection unit condensing the incident light beam.

16. (ORIGINAL) The optical pickup as recited in claim 1, wherein the optical path changer comprises:

a polarization beam splitter selectively transmitting the light beam from the light source to the recording medium and reflecting the incident light beam to the photodetector according to a polarization of the incident light beam; and

a quarter-wave plate disposed on the optical path between the polarization beam splitter and the objective lens changing a phase of the incident light beam.

17. (CANCELLED)

18. (ORIGINAL) The optical pickup as recited in claim 1, further comprising:

a blue-light semiconductor laser emitting the light beam having a wavelength between 400 nm and 420 nm, wherein the objective lens comprises a numerical aperture of at least 0.7.

19-20 (CANCELLED)

21. (ORIGINAL) The optical pickup as recited in claim 2, wherein a size of the light receiving portion is determined where the first light receiving portion receives 10-90% of the entire incident light beam.

22-36 (CANCELLED)

37. (CURRENTLY AMENDED) An optical pickup for a recording medium, comprising:

a light beam division and detection unit comprising receiving portions dividing an incident light beam reflected from the recording medium into a first light beam portion and a second light beam portion ~~around~~ encircling the first light beam portion and converting the first and second light beam portions into first and second detection signals, respectively; and

a thickness variation detection circuit detecting a variation in thickness of the recording medium according to the first and second detection signals and outputting a thickness variation signal indicative thereof.

38. (ORIGINAL) The optical pickup according to claim 37, wherein the thickness

variation detection circuit detects the variation in thickness of the recording medium by subtracting the second detection signal from the first detection signal and outputs a thickness variation signal indicative thereof.

39. (ORIGINAL) The optical pickup according to claim 37, further comprising:

a light source generating and emitting a light beam;

an objective lens focusing the light beam from the light source to form a light spot incident on the recording medium; and

an optical path changer disposed on an optical path between the light source and the objective lens, altering a traveling path of the incident light beam.

40. (ORIGINAL) The optical pickup as recited in claim 37, further comprising:

a spherical aberration compensation element on the optical path between the optical path changer and the objective lens, driven according to the thickness variation signal from the thickness variation detection circuit to compensate for spherical aberration caused by the thickness variation of the recording medium.

41-43 (CANCELLED)

44. (ORIGINAL) The optical pickup as recited in claim 39, wherein the thickness of the recording medium is a distance between a light incident surface of the recording medium and an information recording surface of the recording medium.

45. (ORIGINAL) The optical pickup as recited in claim 39, wherein the optical path changer comprises:

a beam splitter transmitting the light beam from the light source to the recording medium through the objective lens and reflecting the incident light beam through the objective lens to the photodetector by a predetermined ratio.

46. (ORIGINAL) The optical pickup as recited in claim 39, further comprising:

a collimating lens on the optical path between the light source and the optical path changer collimating a diverging light beam from the light source; and

a sensing lens on the optical path between the optical path changer and the light beam division and detection unit condensing the incident light beam.

47. (ORIGINAL) The optical pickup as recited in claim 39, wherein the optical path changer comprises:

a polarization beam splitter selectively transmitting the light beam from the light source to the recording medium and reflecting the incident light beam to the photodetector according to a polarization of the incident light beam; and

a quarter-wave plate disposed on the optical path between the polarization beam splitter and the objective lens changing a phase of the incident light beam.

48. (CANCELLED)

49. (ORIGINAL) The optical pickup as recited in claim 39, wherein the light beam division and detection unit comprises:

a light beam splitter comprising a first section and a second section dividing the incident light beam into the first light beam portion and the second light beam portion around the first light beam portion; and

a photodetector receiving and photoelectrically converting the first and second light beam portions into the first and second detection signals, respectively.

50-52 (CANCELLED)

53. (ORIGINAL) The optical pickup as recited in claim 39, further comprising:

a blue-light semiconductor laser emitting the light beam having a wavelength between 400 nm and 420 nm, wherein the objective lens comprises a numerical aperture of at least 0.7.

54. (CURRENTLY AMENDED) An optical pickup for a recording medium, comprising:

a light source generating and emitting a light beam;

an objective lens focusing the light beam from the light source to form a light spot on the recording medium;

an optical path changer disposed on an optical path between the light source and the objective lens, altering a traveling path of the light beam incident on the recording medium;

a light beam division and detection unit dividing the incident light beam passed through the objective lens and the optical path changer after being reflected from the recording medium into a first light beam portion and a second light beam portion ~~around~~ encircling the first light

beam portion, and detecting first and second detection signals from the first and second light beam portions; and

a thickness variation detection circuit detecting a variation in thickness of the recording medium by subtracting the second detection signal from the first detection signal and outputting a thickness variation signal indicative thereof to compensate for spherical aberration, wherein the optical pickup is exclusive of an astigmatism lens causing astigmatism affecting the light beam passed back through the objective lens, and the optical path changer after being reflected from the recording surface of the optical disc.

55. (NEW) An optical pickup for a recording medium, comprising:

a light source generating and emitting a light beam;

an objective lens focusing the light beam from the light source to form a light spot on the recording medium;

an optical path changer disposed on an optical path between the light source and the objective lens, altering a traveling path of the light beam incident on the recording medium;

a light beam division and detection unit dividing the incident light beam passed through the objective lens and the optical path changer after being reflected from the recording medium into a first light beam portion and a second light beam portion around the first light beam portion, and detecting first and second detection signals from the first and second light beam portions;

a thickness variation detection circuit detecting a variation in thickness of the recording medium by subtracting the second detection signal from the first detection signal and outputting a thickness variation signal indicative thereof; and

a spherical aberration compensation element on the optical path between the optical path changer and the objective lens, driven according to the thickness variation signal from the thickness variation detection circuit to compensate for spherical aberration caused by the thickness variation of the recording medium.

56. (NEW) An optical pickup for a recording medium, comprising:

a light beam division and detection unit comprising receiving portions dividing an incident light beam reflected from the recording medium into a first light beam portion and a second light beam portion around the first light beam portion and converting the first and second light beam portions into first and second detection signals, respectively; and

a thickness variation detection circuit detecting a variation in thickness of the recording medium according to the first and second detection signals and outputting a thickness variation

signal indicative thereof; and

a spherical aberration compensation element on the optical path between the optical path changer and the objective lens, driven according to the thickness variation signal from the thickness variation detection circuit to compensate for spherical aberration caused by the thickness variation of the recording medium.